

### LISTING OF CLAIMS

1. (Currently Amended) A ~~neurological vaccine~~ composition comprising:  
a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen capable of being expressed in a subject, and a pharmaceutical acceptable carrier, such that the expressed antigen elicits production of antibodies in a circulatory system of the subject, wherein the antibodies pass across a blood-brain barrier into a central nervous system upon injury or disease, ~~thereby providing neuroprotection to the subject~~
2. (Currently Amended) The ~~neurological vaccine~~ composition of claim 1, wherein the produced antibodies bind to, and modify a function of ~~a target protein~~ an NMDA receptor in the central nervous system, ~~to thereby ameliorate or prevent onset of a neurological disorder in the subject.~~
3. (Canceled)
4. (Currently Amended) The ~~neurological vaccine~~ composition of claim 1, wherein the antigen is NMDAR1.
5. (Currently Amended) The ~~neurological vaccine~~ composition of claim 2, wherein the ~~neurological disorder~~ injury is stroke.
6. (Currently Amended) The ~~neurological vaccine~~ composition of claim 2, wherein the ~~neurological disorder~~ disease is epilepsy.
7. (Currently Amended) The ~~neurological vaccine~~ composition of claim 1, wherein the ~~vaccine~~ vector is a viral vector ~~vaccine~~.

8. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, ~~7,~~ wherein the ~~vaccine comprises a viral vector~~ is selected from the group consisting of an adenovirus vector, a herpes virus vector, a parvovirus vector, and a lentivirus vector.
9. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 8, wherein the viral vector is an adeno-associated virus vector.
10. (Currently Amended) The ~~neurological-vaccine~~ composition of claim 1, wherein the ~~vaccine~~ composition is a preparation for oral administration.
11. (Currently Amended) A method for modulating a ~~neurological disorder or delaying onset of epilepsy, stroke, or decreased cognition~~, wherein said method comprises the step of administering the ~~neurological-vaccine~~ composition of claim 1 to a subject.
12. (Currently Amended) A method for ameliorating a ~~neurological disorder or delaying onset of epilepsy, stroke, or decreased cognition~~ in a subject comprising:  
administering a ~~vaccine~~ composition comprising a vector comprising a nucleic acid sequence encoding for an N-methyl-D-aspartate (NMDA) receptor antigen, and a pharmaceutical acceptable carrier, wherein the antigen elicits the production of antibodies in a circulatory system of the subject which modify the function of a ~~target protein~~ an NMDA receptor in the central nervous system, ~~to thereby provide neuroprotection to the subject.~~
13. (Canceled)
14. (Original) The method of claim 12, wherein the antigen is NMDAR1.
15. (Canceled) ~~The method of claim 12, wherein the neurological disorder is selected from the group consisting of epilepsy, stroke, or decreased cognition.~~
- 16.-19. (CANCELED)